

We claim

1. A jobsite-renewable floor finish comprising a film former and sufficient lightness-inducing pigment to provide a translucent hardened finish layer having an increased lightness value.
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2. A finish according to claim 1 wherein the pigment has a submicron average particle diameter and will diffusely reflect light.
3. A finish according to claim 1 wherein the pigment is designated opaque or semi-opaque by the National Association of Printing Ink Manufacturers in their *NPIRI Raw*
10 *Materials Data Handbook*.
4. A finish according to claim 1 wherein the pigment is designated a "pigment white" in the Society of Dyers and Colourists *Colour Index*.
5. A finish according to claim 1 wherein the pigment comprises zinc oxide, lithopone, titanium dioxide, zinc sulfide, antimony oxide, zirconium oxide, barium sulfate, coprecipitated
15 $3\text{BaSO}_4/\text{Al}(\text{OH})_3$, bismuth oxychloride or mixture thereof.
6. A finish according to claim 1 wherein the pigment comprises titanium dioxide in its rutile form.
7. A finish according to claim 1 wherein the pigment comprises ultrafine zinc oxide.
8. A finish according to claim 1 wherein the film former is water-soluble or water-
20 dispersible.
9. A finish according to claim 1 wherein the film former comprises a water-soluble or water-dispersible acid-containing polymer crosslinked using a transition metal, alkaline earth metal, alkali metal or mixture thereof.

10. A finish according to claim 9 wherein the transition metal comprises zinc and the polymer is acrylic.
11. A finish according to claim 1 wherein the film former comprises a radiation-curable polyurethane, polyurethane dispersion, multipart polyurethane or latent one part polyurethane
5 composition containing a blocked isocyanate.
12. A finish according to claim 1 that when coated at a 50 m²/liter coating rate atop patterned vinyl composition floor tiles and evaluated using the L*a*b color space has a lightness value L greater than that obtained in the absence of the pigment and less than about 60.
- 10 13. A finish according to claim 12 wherein the lightness value L is less than about 55.
14. A finish according to claim 12 wherein the lightness value L is less than about 50.
15. A finish according to claim 1 wherein the ratio calculated by dividing the lightness value L by the Hiding Power is above about 30, with Hiding Power being determined using a Form 24B Gray Scale chart coated with a 0.015 mm thick layer of hardened finish and
15 measuring the first gray scale bar that can be clearly differentiated from a white background by an observer located three meters from the coated gray scale chart.
16. A finish according to claim 15 wherein the ratio is above about 35.
17. A finish according to claim 1 that when coated at a 50 m²/liter coating rate atop patterned vinyl composition floor tiles and evaluated using the L*a*b color space has a ratio
20 calculated by dividing the whiteness index by the 500 nm absorbance coefficient that is above about 40.
18. A finish according to claim 17 wherein the ratio is above about 80.
19. A finish according to claim 1 containing about 1 to about 75 wt. % pigment based on the total floor finish composition weight.

20. A finish according to claim 1 containing about 2 to about 60 wt. % pigment based on the total floor finish composition weight.
21. A floor coating method comprising applying to a flooring substrate a mixture comprising a film former and sufficient lightness-inducing pigment to provide a translucent jobsite-renewable finish having an increased lightness value.
22. A method according to claim 21 wherein the pigment has a submicron average particle diameter and will diffusely reflect light.
23. A method according to claim 21 wherein the pigment is designated a "pigment white" in the Society of Dyers and Colourists *Colour Index*.
- 10 24. A method according to claim 21 wherein the pigment comprises zinc oxide, lithopone, titanium dioxide, zinc sulfide, antimony oxide, zirconium oxide, barium sulfate, coprecipitated $3\text{BaSO}_4/\text{Al}(\text{OH})_3$, bismuth oxychloride or mixture thereof.
25. A method according to claim 21 wherein the pigment comprises titanium dioxide in its rutile form.
- 15 26. A method according to claim 21 wherein the pigment comprises ultrafine zinc oxide.
27. A method according to claim 21 wherein the film former is water-soluble or water-dispersible.
28. A method according to claim 21 wherein the film former comprises a water-soluble or water-dispersible acid-containing polymer crosslinked using a transition metal, alkaline earth metal, alkali metal or mixture thereof.
- 20 29. A method according to claim 28 wherein the transition metal comprises zinc and the polymer is acrylic.

30. A method according to claim 21 wherein the film former comprises a radiation-curable polyurethane, polyurethane dispersion, multipart polyurethane or latent one part polyurethane composition containing a blocked isocyanate.

31. A method according to claim 21 wherein the mixture when coated at a 50 m²/liter coating rate atop patterned vinyl composition floor tiles and evaluated using the L*a*b color space has a lightness value L greater than that obtained in the absence of the pigment and less than about 60.

32. A method according to claim 31 wherein the coated mixture when hardened will impart to the floor tiles a cleaner appearance but will permit the pattern to be clearly discerned under normal daytime illumination by an observer standing on the floor tiles.

33. A method according to claim 31 wherein the ratio calculated by dividing the lightness value L by the Hiding Power is above about 30, with Hiding Power being determined using a Form 24B Gray Scale chart coated with a 0.015 mm thick layer of hardened finish and measuring the first gray scale bar that can be clearly differentiated from a white background by an observer located three meters from the coated gray scale chart.

34. A method according to claim 33 wherein the ratio is above about 35.

35. A method according to claim 21 wherein the substrate comprises vinyl sheet flooring, linoleum, rubber sheeting, vinyl composite tiles, rubber tiles, cork or a synthetic sports floor.

36. A method according to claim 21 wherein the substrate comprises concrete, stone, marble, wood, ceramic tile, grout, Terrazzo or a dry shake floor.

37. A method according to claim 21 comprising applying to the substrate a multilayer finish comprising at least one layer of an undercoat and at least one layer of a topcoat having different compositions.

38. A method according to claim 37 wherein at least one layer of the undercoat comprises the pigment.

39. A jobsite-renewable floor finish kit comprising instructions for using the kit to apply the floor finish, wherein the kit contains a film former and sufficient lightness-inducing pigment to provide a translucent jobsite-renewable hardened finish having an increased lightness value.
- 5 40. A kit according to claim 39 wherein the pigment has a submicron average particle diameter and will diffusely reflect light.
41. A kit according to claim 39 wherein the pigment is designated a "pigment white" in the Society of Dyers and Colourists *Colour Index*.
42. A kit according to claim 39 wherein the pigment comprises zinc oxide, lithopone,
10 titanium dioxide, zinc sulfide, antimony oxide, zirconium oxide, barium sulfate, coprecipitated $3\text{BaSO}_4/\text{Al}(\text{OH})_3$, bismuth oxychloride or mixture thereof.
43. A kit according to claim 39 wherein the pigment comprises titanium dioxide in its rutile form.
44. A kit according to claim 39 wherein the pigment comprises ultrafine zinc oxide.
- 15 45. A kit according to claim 39 wherein the film former is water-soluble or water-dispersible.
46. A kit according to claim 39 wherein the film former comprises a water-soluble or water-dispersible acid-containing polymer crosslinked using a transition metal, alkaline earth metal, alkali metal or mixture thereof.
- 20 47. A kit according to claim 46 wherein the transition metal comprises zinc and the polymer is acrylic.
48. A kit according to claim 39 wherein the film former comprises a radiation-curable polyurethane, polyurethane dispersion, multipart polyurethane or latent one part polyurethane composition containing a blocked isocyanate.

49. A kit according to claim 39 wherein a mixture of the film former and pigment coated at a 50 m²/liter coating rate atop patterned vinyl composition floor tiles and evaluated using the L*a*b color space has a lightness value L greater than that obtained in the absence of the pigment and less than about 60.
- 5 50. A kit according to claim 49 wherein the coated mixture when hardened imparts to the floor tiles a cleaner appearance but permits the pattern to be clearly discerned under normal daytime illumination by an observer standing on the floor tiles.
51. A kit according to claim 49 wherein the ratio calculated by dividing the lightness value L by the Hiding Power is above about 30, with Hiding Power being determined using a
- 10 Form 24B Gray Scale chart coated with a 0.015 mm thick layer of hardened finish and measuring the first gray scale bar that can be clearly differentiated from a white background by an observer located three meters from the coated gray scale chart.
52. A kit according to claim 51 wherein the ratio is above about 35.
53. A kit according to claim 39 comprising an undercoat and topcoat having different
- 15 compositions.
54. A kit according to claim 53 wherein at least the undercoat comprises the pigment.